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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,147	03/31/2004	David R. Bogue	030048136US	8216

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PERKINS COIE LLP  
PATENT-SEA  
P.O. BOX 1247  
SEATTLE, WA 98111-1247

EXAMINER

COLLINS, TIMOTHY D

ART UNIT PAPER NUMBER

3643

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/815,147

Applicant(s)

BOGUE, DAVID R.

Examiner

Timothy D. Collins

Art Unit

3643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-48 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-22 and 28-34, drawn to an airfoil with shock control, classified in class 244, subclass 198.
- II. Claims 23-27, drawn to a transonic wing, classified in class 244, subclass 35A.
- III. Claims 43-48, drawn to a method of making an airfoil, classified in class 244, subclass 123.
- IV. Claims 35-42, drawn to a method of controlling airflow, classified in class 244, subclass 1N.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions III and IV are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different effects (they are a way of controlling airflow and way of making an airfoil) and they have different modes of operation because controlling an airflow is not the same as making an airfoil.
3. Inventions III and I/II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2)

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that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product can be made with a process including positioning an upper surface on the upper portion of the wing with other control surfaces on it or the process can be used to make a device with lift control devices (such as spoilers) instead of a shock control device.

4. Inventions I/III and IV are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product can be used to perform the function of a lift control device instead of a shock control device because a method of using at low speed can be performed with the device where shocks do not exist.

5. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because it does not require the fixed protrusion and plurality of successive segments aligned with characteristic waves. The subcombination has separate utility such as in the spoilers of a transonic competitive automobile.

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**NOTE : Applicant must choose from one of the group of III or IV or I/II. If the group of I and II is chosen then the applicant must further choose one of inventions I or II. A proper response will include only one invention being chosen which is either I, II, III, or IV.**

6. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

8. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group III, restriction for examination purposes as indicated is proper.

**NOTE : When, one of inventions I or II of the above is chosen, the following election of species also applies.**

9. This application contains claims directed to the following patentably distinct species of the claimed invention:

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- a. Species A: the protrusion is fixed on the lower surface of the wing (similar to claim 3)
- b. Species B: the protrusion is movable relative to the lower surface of the wing (similar to claim 4)

Further after choosing one of the above Species the following Sub-Species must also be chosen from:

10. This application contains claims directed to the following patentably distinct species of the claimed invention:

- c. Sub-Species 1: the upper and lower surfaces are part of a movable aircraft flight control device (similar to claim 13)
- d. Sub-Species 2: the upper and lower surfaces are part of a rotorcraft rotor (similar to claim 14)

Further after choosing one of the above Sub-Species the following Sub-sub-Species must also be chosen from:

11. This application contains claims directed to the following patentably distinct species of the claimed invention:

Upon election of one of the sub-species 1-2, the applicant is further required to elect a single sub-sub-species of the following under 35 USC 121 for the purpose

of examination. This additional requirement is to facilitate examining due to the broad range of airfoil combinations that can be included as the device upon which the shock control device may be included.

Elect the type of airfoil (from claim 30), (e.g. wing only, horizontal tail only, rotor only, canard only, etc..) NOTE: that this above election should not be open-ended (i.e., comprising). An open ended election will be considered non-responsive.

Further after choosing one of the above sub-sub-Species the following sub-sub-sub-Species must also be chosen from:

12. This application contains claims directed to the following patentably distinct species of the claimed invention:

- e. Sub-sub-sub-Species a: the shock control protrusion is a single protrusion (similar to claim 33)
- f. Sub-sub-sub-Species b: the shock control protrusion is one of a plurality of shock control protrusions (similar to claim 34)

**A proper response will therefore include only one of the choices of I, II, III, or IV, with one of species A or B being chosen when I or II is chosen and one of each of the sub-species, sub-sub-species, and sub-sub-sub-species being chosen.**

**Therefore a proper reply may include “invention I species B, sub-species 2, sub-sub-species “canard”, sub-sub-sub-species a”.**

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, no claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

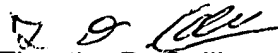


Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy D. Collins whose telephone number is 571-272-6886. The examiner can normally be reached on M-F, 7:00-3:00, with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Timothy D. Collins  
Patent Examiner  
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